



CERTIFICATE OF ANALYSIS

Chain of Custody: 630998
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Longfellow Elementary School
Job Location: 5470 Hesperus Drive, Columbia, MD
21044
Job Number: 13.056
P.O. Number: Not Provided

Date Submitted: 11/12/2021
Date Analyzed: 11/19/2021
Report Date: 11/19/2021
Date Sampled: 11/11/2021 - 11/12/2021
Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
630998-1	LOES 3 First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Cooler/Chiller Style, Consumption, Cafeteria, , Fountain, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-2	LOES 4 First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Cooler/Chiller Style, Consumption, Cafeteria, , Fountain, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-3	LOES 5F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-4	LOES 6F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-5	LOES 7F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-6	LOES 8F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-7	LOES 9F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-8	LOES 11F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-9	LOES 12F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-10	LOES 13F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-11	LOES 14F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-12	LOES 15F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-13	LOES 16F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-14	LOES 17F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	0.78 ug/L	



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630998-15	LOES 18F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-16	LOES 19F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-17	LOES 20F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-18	LOES 21F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-19	LOES 22F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-20	LOES 23F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-21	LOES 24F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-22	LOES 25F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-23	LOES 26F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-24	LOES 28F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-25	LOES 29F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-26	LOES 30F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-27	LOES 31F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-28	LOES 33F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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630998-29	LOES 34F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-30	LOES 35 First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Cooler/Chiller Style, Consumption, Hallway, , Fountain, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-31	LOES 36 First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Cooler/Chiller Style, Consumption, Hallway, , Bubblers, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-32	LOES 37F First-Draw	11/11/2021 5:11 am	Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	0.54 ug/L	
630998-33	LOES 1 First-Draw	11/12/2021 5:42 am	Ice Machine, Consumption, Kitchen, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-34	LOES 2 First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Kitchen, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-35	LOES 3BW First-Draw	11/12/2021 5:42 am	Bottle Refill Dispenser/Water Refill Station, Consumption, Cafeteria, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-36	LOES 5S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-37	LOES 6S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-38	LOES 7S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-39	LOES 8S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-40	LOES 9S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-41	LOES 10S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-42	LOES 11S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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630998-43	LOES 12S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-44	LOES 13S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-45	LOES 14S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-46	LOES 15S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-47	LOES 16S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-48	LOES 17S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-49	LOES 18S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-50	LOES 19S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-51	LOES 20S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-52	LOES 21S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-53	LOES 22S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-54	LOES 23S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-55	LOES 24S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-56	LOES 25S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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630998-57	LOES 26S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-58	LOES 27 First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Office, , Sink, ,	ICP	Lead	0.5 ug/L	0.64 ug/L	
630998-59	LOES 28S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	0.5 ug/L	0.50 ug/L
630998-60	LOES 29S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	0.55 ug/L	
630998-61	LOES 30S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-62	LOES 31S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-63	LOES 32S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-64	LOES 33S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	1.3 ug/L	
630998-65	LOES 34S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Classroom, , Sink, ,	ICP	Lead	0.5 ug/L	1 ug/L	1.0 ug/L
630998-66	LOES 36BW First-Draw	11/12/2021 5:42 am	Bottle Refill Dispenser/Water Refill Station, Consumption, Hallway, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-67	LOES 37S First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Nurse's Office/Health Room, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-68	LOES 38 First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Teachers' Lounge/Break Room, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
630998-69	LOES 39 First-Draw	11/12/2021 5:42 am	Faucet, Cold, Consumption, Nurse's Office/Health Room, , Sink, ,	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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Analysis Methods: Flame AA: APHA SM3111B (1999, 22nd Ed.), Furnace AA: APHA SM3113B (2010, 22nd Ed.), ICP: EPA 200.8 (Rev. 5.4)				Sample Collector: Jeff Klenk Certification:					
mg/L = Parts Per Million (ppm), N/A = Not Applicable, µg/L = Parts Per Billion, N/P = Not Provided				All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.					
Analyst(s): Jean-Paul Littleton									

Technical Director George Land

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NY ELAP, AIHA-LAP, or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.